

# Mother's obesity a factor in newborn deaths for blacks, not whites, new study reports

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A study led by the University of South Florida sheds new light on obesity's role in the black-white gap in infant mortality. While maternal obesity appears to have no impact on the early survival of infants born to white women, the situation is different for black women, researchers report in the June 2008 issue of the journal *Obstetrics & Gynecology*.

Infants of obese black mothers had a higher risk of death in the first 27 days following birth than newborns of obese white mothers, the researchers found. Furthermore, this black disadvantage in neonatal infant mortality widened with an increase in the body mass index (BMI).

"Even if the infant of an obese black woman survives pregnancy, labor and delivery, that baby is at greater risk of dying than a baby born to an obese white woman," said the study's lead author Hamisu Salihu, MD, PhD, associate professor of epidemiology at the USF College of Public Health.

The researchers analyzed more than 1.4 million births recorded from Missouri's vital records database, covering the period 1978 through 1997. The database linked black and white mother-infant pairs. Among all women, the likelihood of neonatal death (up to 27 days following death) and early neonatal death (up to six days following death) was 20 percent greater than for nonobese women, the researcher found. Further analysis revealed that the higher risk of neonatal deaths among newborns of obese mothers was confined to blacks only. The rate of neonatal deaths increased significantly with rising BMIs of black women (ranging from 50 to 100-percent increments). However, the offspring of obese white mothers, regardless of the severity of maternal obesity, had no greater risk of neonatal death than the newborns of nonobese women.

The black-white disparity in infant mortality persisted even when the researchers adjusted for certain obesity-associated medical complications more prevalent in black women -- high blood pressure, diabetes and preeclampsia. "This further confirms our findings that high BMI is an independent risk factor for neonatal mortality among blacks but not whites," Dr. Salihu said.

The researchers also controlled for the amount of prenatal care received since another possible explanation for the black-white disparity may be that obese white women have better access to prenatal care than black women. Their results suggested otherwise, but Dr. Salihu cautions that more study is needed. "We cannot dismiss access to care as a factor because the quantity of prenatal care does not take into account the quality of care received," he said.

Dr. Salihu suggests that differences in the way fat is distributed in white and black women may play a role in their newborns' survival. Studies have shown that fat tucked deep inside the waistline may be worse for adults' health than fat padding the rest of the body. "If we can understand more about the potential association between fat distribution in mothers and likelihood of death in their babies, we might have an avenue for prevention and narrowing the persistent black-white gap in infant mortality," he said.

Source: University of South Florida Health

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